

Subchapter Seven: Grading and Erosion and Sediment Control

5.07.010 Title.

This ordinance shall be known as the "Town of Colma Grading and Erosion and Sediment Control Ordinance" and may be so cited.

[[*History:* formerly § 5.701; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05, ORD. 663, 9/12/07; ORD. 664, 10/10/07]

5.07.020 Purpose.

The purposes of this ordinance are to provide for safe grading operations, to safeguard life, limb and property, to preserve and enhance the natural environment, to control erosion and sedimentation, to decrease the risk of flooding, to reduce the impacts on riparian habitats and stream capacity, and to assure consistency with the General Plan of the Town of Colma.

[*History:* formerly § 5.702; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05; ORD. 663, 9/12/07; ORD. 664, 10/10/07]

5.07.030 Scope.

This subchapter sets forth rules and regulations to control land disturbances, land fill, soil storage operations, hauling and erosion and sedimentation resulting from such activities. This subchapter establishes procedures for issuance, administration and enforcement of a permit(s).

[*History:* formerly § 5.703; Ord. 275, 8/11/82; Ord. 368, 5/11/88; Ord. 638, 12/14/05; Ord. 663, 9/12/07; ORD. 664, 10/10/07]

5.07.040 Definitions.

As used in this subchapter, the following words and phrases shall have the meaning shown:

"ABAG Manual of Standards" means the most recent published compilation of technical standards and design specifications entitled "Manual of Standards for Erosion & Sediment Control Measures", prepared by the Association of Bay Area Governments (ABAG), which standards and design specifications are hereby adopted as proven methods of controlling construction related surface runoff, erosion and sediments. This text may be used in conjunction with the California Regional Water Quality Board(CRWQCB) Guidelines for Construction or the CRWQCB Field Manual.

"ABAG Erosion and Sediment Control Handbook" is a resource that provides information needed to select and design erosion control measures for construction sites. This Handbook may be used in conjunction with the California Regional Water Quality Board(CRWQCB) Guidelines for Construction or the CRWQCB Field Manual.

"Applicant" means any person, corporation, partnership, association of any type, public agency or any other legal entity who submits an application to the City Engineer for a permit pursuant to this chapter.

"Application Form" means the questionnaire form adopted, and amended from time to time, by the City Engineer.

"As-Graded" means the surface conditions extant on completion of grading.

"Bedrock" means in-place solid rock.

"Bench" means a level step in a fill slope.

"Best Management Practices" (BMP's) means a technique or series of techniques which, when used in a construction project, is proven to be effective in controlling construction related run-off, erosion and sedimentation.

"Borrow" means earth material acquired from an off-site location for use in grading on a site.

"California Regional Water Control Board" (CRWQCB) means the governing board that oversees and mandates policies, principles and requirements to assure water quality.

"California Regional Water Control Board" (CRWQCB) Field Manual is a resource that provides information and guidelines to assist in mitigating erosion, sediment and pollutant run offs into the water courses.

"Compaction" means the densification of fill material by mechanical means.

"City Engineer" means City Engineer of the Town of Colma or his/hers duly authorized designees.

"Civil Engineer" means a professional Engineer registered in the State to practice in the field of civil engineering.

"Civil Engineering" means the application of the knowledge of the forces of nature, principals of mechanics and the properties of materials to the evaluation, design and construction of civil works.

"Clear And Grubbing" means the removal of vegetation prior to grading.

"Diversion" means a temporary or permanent facility consisting of a channel, ditch, or ridge constructed across a sloping land surface to intercept and divert surface runoff in order to control its erosion potential.

"Drainage Course" means natural or manmade channel which collects and intermittently or continuously conveys storm water run-off.

"Earth Material" means any rock, natural soil or fill and/or combination thereof.

"Engineering Geologist" means a geologist certified in the State of California to practice engineering geology.

"Engineering Geology" means the application of geologic knowledge and principals in the investigation and evaluation of naturally occurring rock and soil for use in design of civil works.

"Erosion" means the wearing away of the ground surface as a result of the movement of wind, water or ice.

"Erosion and Sediment Control Plan" means a set of best management practices or equivalent measures designed to control surface run-off and erosion and to retain sediment on a particular site during excavation and construction and after all other planned final structures and permanent improvements have been erected or installed. Interim Erosion and Sediment Control Plan means a plan that depicts the erosion control measure designed for a project under construction. Final Erosion and Sediment Control Plan means a plan that depicts the erosion control measures designed for a completed project (Post Construction).

"Excavation" (Cut) means any act by which soil or rock is cut into, but not limit to trenching, digging, quarried, uncovered, removed, displaced, or relocated.

"Fill" means a deposit of earth or other material placed by artificial means.

"Geotechnical Engineer" is a synonym for "Soils Engineer".

"Grade" means the vertical location of the ground surface. Existing Grade means the grade prior to grading. Rough Grade means the stage at which the grade approximately conforms to the approved plan. Finish Grade means the final grade of the site which conforms to the approved plan.

"Grading" means any land excavation or filling or combination thereof.

"Key", "keying" or "keyed" refers to a designed compacted fill placed in a trench excavated in earth material beneath the toe of a proposed fill slope.

"Land Disturbance" or "Land Disturbing Activities" means any moving or removing by manual or mechanical means of the soil mantle or top 6 inches of soil whichever is shallower, including, but not limited to, excavations.

"Land Fill" means any human activity depositing materials other than earthen materials.

"Mulching" means the application of plant residue or other suitable materials to the land surface to conserve moisture, hold soil in place, and aid in establishing plant cover.

"Permittee" means the applicant in whose name a valid permit is duly issued pursuant to this chapter, and his agents, employees and others acting under his direction.

"Rainy Season" means the period of time between October 15th and the following April 15th or as directed by the State's Regional Water Quality Control Board.

"Runoff" means the surface flow of water, especially the flow following precipitation.

"Sediment" means earth material deposited by water or wind.

"Sediment Basin" means a reservoir which retards flows sufficiently to cause or allow deposition of transported sediment.

"Site" means a parcel or parcels of real property owned by one or more than one person which is being or is capable of being developed as a single project.

"Site Map and Grading Plan" (Grading Plan) means the plan described in this subchapter.

"Slope" means An inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance. Vertical distance divided by horizontal distance gives percent slope. Slope can also be expressed as the number of degrees in the angle formed by the intersection of the ground surface and the inclined surface.

"Soil" means naturally occurring superficial deposits overlying bed rock.

"Soils" and Geological Reconnaissance Report (Soils Report) means a report as described in this subchapter.

"Soils Engineer" means a civil engineer registered in the State of California specializing and recognized in soil mechanics and foundation engineering.

"Soils Engineering" means the application of the principles of soil mechanics in the investigation, evaluation and design of civil works involving the use of earth materials and the inspection and/or testing of the construction there of.

"Stockpile" means a supply of earth, rock, gravel, sand, or other similar material accumulated and stored prior to final disposition. A temporary stockpile and a Construction and Demolition Stockpiles are those in existence solely as a result of construction and/or demolition on a site in conjunction with approved development plans. A cemetery stockpile is one that is related to the spoils from grave excavations that vary in size due to the nature of the cemetery business.

"Storm Water Detention" means the temporary storing of a portion of tributary storm water in on-site facilities until peak runoff period has passed.

"Terrace" means a relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.

"Town" means the Town of Colma, a general law city in the State of California.

"Topsoil" means the upper fertile layer of soil, from which plant roots take nutrients, topsoil can be achieved through the direction and recommendations of a certified soils laboratory by amending the existing native soil.

"Tree" means a tree as defined in Section 5.06.020 of the Colma Municipal Code.

"Watercourse" means a drainage channel carrying water year round.

[*History:* formerly § 5.704; Ord. 275, 8/11/82; Ord. 368, 5/11/88; Ord. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.050 Hazards.

Whenever the City Engineer determines that any existing excavation or embankment or fill on private property has become a hazard to life and limb, or endangers property, or adversely affects the safety, use or stability of a public way or drainage channel, the owner of the property upon which the excavation or fill is located, or other person or agency in control of said property, upon receipt of notice in writing from the City Engineer shall, within the period specified therein, repair or eliminate such excavation or embankment so as to eliminate the hazard and be in conformance with the requirements of this Code. If the owner and occupant fail to correct the hazard, the City Engineer has the authority to take control and authorize all needed expenditures to mitigate the imminent hazard. Cost associated with this correction effort shall be borne by the owner and occupant, jointly and severally.

[*History:* formerly § 5.05; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.060 Severability and Validity.

If any part of this ordinance is found not valid, the remainder of this ordinance shall remain in effect.

[*History:* formerly § 5.706; Ord. 275, 8/11/82; Ord. 368, 5/11/88; Ord. 638, 12/14/05; Ord. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.070 Prohibited Activities.

(a) No person may grade, fill, excavate, store or dispose of soil and earth materials, or obstruct or modify the characteristics of a drainage course, or perform any other land disturbing or land filling activity without first obtaining a permit as set forth in this subchapter, unless exempted pursuant to section 5.07.080 or 5.07.090.

(b) Clearing and Grubbing is prohibited unless a valid grading permit has been issued, and the clearing and grubbing of the site conforms to the approved grading plan.

(c) No person may grade in such a manner so as to cause erosion or increase runoff or sedimentation onto any adjacent or contiguous property or public street(s).

[*History:* formerly § 5.707; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.080 General Exemptions.

Each of the following activities is exempt from the permit requirements of section 5.07.070(a):

(1) An excavation below finished grade for basements and footings of a building, retaining wall or other structure authorized by a valid building permit, except that fill made with the material from such excavation and any excavation having an unsupported height greater than 5 feet after the completion of the structure shall not be exempt;

(2) Excavation and or filling of a cemetery grave;

(3) Excavations for wells;

(4) Exploratory excavations under the direction of a qualified soil engineer or engineering geologist;

(5) The emergency excavation, filling, storing or disposal of soil and earth materials to prevent or reduce an immediate danger to life or property or a substantial risk of flood, landslide or fire;

(6) Excavation, when the quantity is fifty cubic yards or less, the depth is four feet or less, and the slope of the cut face is two feet horizontal to one foot vertical or less.

(6) Fill, when the quantity is fifty cubic yards or less placed on ground sloping ten percent or less, the height is four feet or less, the slope of the fill embankment face is two feet horizontal to one foot vertical or less, and the existing drainage patterns are not altered.

(7) Minor agricultural land leveling when the change in elevation is three feet or less.

(8) Clearing vegetation, when the slope of the ground is ten percent or less, the area to be cleared is one acre or less, and no land disturbance within one hundred feet of a watercourse or water body.

(9) Trenching undertaken by the Town or where an encroachment permit has been issued for work that is in the Right of Way.

[*History:* formerly § 5.07.090 and before that, § 5.709, ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.090 Categorical Exemptions.

(a) *Temporary Stockpiles.* The creation or use of a temporary stockpile is exempt from the permit requirements in section 5.07.070(a), provided that the stockpile:

- (1) does not exceed fifty (50) cubic yards;
- (2) is constructed and maintained in a manner that does not obstruct or modify the characteristics of a drainage course, or increase runoff or sedimentation onto any adjacent or contiguous property;
- (3) is located more than 100 feet by horizontal measurement from the top of the bank of a watercourse, the mean high water mark of a body of water or within the wetlands associated with a water course or a water body; and
- (4) is completely removed within one year after creation or, if an extension is granted by the City Engineer for good cause, one year after the date determined by the City Engineer on an application for an extension.

(b) *Construction and Demolition Stockpiles.* The creation or use of a construction and demolition stockpile is exempt from the permit requirements in section 5.07.070(a), provided that: and

- (1) the construction or demolition work is for a project for which all applicable permits (e.g., use permit, building permit, demolition permit) have been duly granted and maintained; and
- (2) the stockpile is constructed and maintained in a manner that does not obstruct or modify the characteristics of a drainage course, or increase runoff or sedimentation onto any adjacent or contiguous property; and
- (3) the stockpile is located more than 100 feet by horizontal measurement from the top of the bank of a watercourse, the mean high water mark of a body of water or within the wetlands associated with a water course or a water body, whichever distance is greater; and
- (4) the stockpile is certified by the City Engineer, between June 1 and August 30 of each year, as having been maintained in conformance to the guidelines set forth in the CRWQCB Field Manual.

(c) *Cemeteries.* The creation or use of a stockpile of dirt or sand for continual, ongoing use in an active cemetery is exempt from the permit requirements of section 5.07.070(a) provided that:

- (1) the stockpile is constructed and maintained in a manner that does not obstruct or modify the characteristics of a drainage course, or increase runoff or sedimentation onto any adjacent or contiguous property;

(2) the stockpile is located more than 100 feet by horizontal measurement from the top of the bank of a watercourse, the mean high water mark of a body of water or within the wetlands associated with a water course or a water body, whichever distance is greater; and

(3) the stockpile is certified by the City Engineer, between June 1 and August 30 of each year, as having been maintained in conformance to the guidelines set forth in the CRWQCB Field Manual.

(d) *Plant Nurseries and Landfills:* The stockpiling of dirt, rock, sand, gravel, aggregate, or clay for a plant nursery, landfill or quarry are exempt from the permit requirements in section 5.07.070(a), provided that:

(1) a use permit or other land use entitlement has been issued for the use of the property as a plant nursery or landfill, the use of the property is in compliance with all conditions of the entitlement, and the operation of the stockpile is consistent with the terms of the entitlement; and

(2) the stockpile is constructed and maintained in a manner that does not obstruct or modify the characteristics of a drainage course, or increase runoff or sedimentation onto any adjacent or contiguous property; and

(3) the stockpile is located more than 100 feet by horizontal measurement from the top of the bank of a watercourse, the mean high water mark of a body of water or within the wetlands associated with a water course or a water body, whichever distance is greater; and

(4) the stockpile is certified by the City Engineer, between June 1 and August 30 of each year, as having been maintained in conformance to the guidelines set forth in the CRWQCB Field Manual

[*History:* Parts based on former § 5.07.090; Most: New; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.100 Application.

(a) The application for a permit must include all of the following items, properly completed:

- (1) An Application;
- (2) Site Map and Grading Plan;
- (3) Erosion and Sediment Control Plan consistent with the Guidelines set forth in the CRWQCB Field Manual, with specific attention to both off-site and on-site impacts.
- (4) Soils Engineering Report, when required by the City Engineer;

- (5) Geology Engineering Report, when required by the City Engineer;
- (6) Work schedule, as provided in this subchapter;
- (7) Drainage calculations and storm water detention calculations, when required by the City Engineer;
- (8) Traffic Control Measures and Haul Routes, when the grading activities may cause a significant adverse impact on traffic;
- (9) Application fees;
- (10) Performance bond or other acceptable security, as described in section 5.07.180; and
- (11) Any supplementary material reasonably required by the City Engineer.

(b) At any time, the City Engineer may, in his or her discretion, require submission of additional data and recommendations, including but not limited to geological, geotechnical, soil and liquefaction studies and reports, to determine the suitability of the grading plan.

[History: formerly § 5.710; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.110 Site Map and Grading Plan.

(a) Site Map and Grading Plan shall contain all the following information:

- (1) Existing and proposed topography of the site taken at a contour interval sufficiently detailed (but not more than five foot intervals) to define the topography over the entire site;
- (2) Two-foot contour intervals that extend a minimum distance off-site, sufficient to show on and off site drainage;
- (3) The Site's property lines shown in true location with respect to the plan's topographic information;
- (4) Location and graphic representation of all existing and proposed natural and man-made drainage facilities;
- (5) Detailed plans of all surface and subsurface drainage devices, storm water detention facilities, walls, cribbing, dams and other protective devices to be constructed with, or as a part of the proposed work together with a map showing the drainage area and the estimated run-off from the area served by any drain;

- (6) Detailed drawing and specifications for items relating to culverts, drainage structures retaining walls and other site improvements as required by the City Engineer;
 - (7) Location and graphic representation of proposed excavations and fills, of on-site storage of soil and other earthen material, and of on-site disposal;
 - (8) Location and size of all trees over twelve-inch diameter or multi-stemmed perennial plant having an aggregate diameter of 40 inches or more measured four feet above the natural ground, indicating those to be removed and any tree on adjacent property within twenty-five (25) feet of any grading or support operations;
 - (9) Location of proposed final surface run-off, erosion and sediment control measures in accordance with the CRWQCB Guidelines for Construction Projects;
 - (10) Quantity of soil or earthen material in cubic yards to be excavated, filled, stored or otherwise utilized on-site;
 - (11) Proposed sequence and schedule of excavation, filling and other land disturbing and filling activities, and soil or earthen material storage disposal;
 - (12) Location of any buildings or structures on the property where the work is to be performed and the location of any buildings or structures on land or adjacent owners which are within 15 feet of the property or which may be affected by the proposed grading operations;
 - (13) A delineation and brief description of the measures to be undertaken to retain sediment on the site during excavation in accordance with the Manual of Standards;
 - (14) A delineation and brief description of the surface run-off and erosion control measures to be implemented, including vegetative measures to be implemented following excavation, all in accordance with the Manual of Standards.
- (b) Runoff calculations must be submitted with the grading plan.
- (1) Maximum runoff shall be computed using the rational method. The rainfall intensity-duration curve for this geographical area, or a similar curve approved by the City Engineer shall be used in the computation.
 - (2) Runoff design shall accommodate the full and anticipated future development within the drainage area.
 - (3) Drainage channels having a drainage area of four square miles or more shall be designed to contain a fifty year frequency of occurrence runoff. Drainage

channels having a drainage area of less than four square miles and more than one square mile shall be designed to contain a twenty-five year frequency of occurrence runoff. Drainage channels having a drainage area of one square mile or less shall be designed to contain a ten year frequency of occurrence runoff.

- (c) The maximum size of each sheet of the grading plan shall be twenty-four inches by thirty six.
- (d) The scale of the grading plan shall be an engineering scale large enough to show clearly all details, but not larger than one inch equals one hundred feet.
- (e) The details of any drainage structures and or retaining walls must be shown on the grading plan.
- (f) Specifications describing proposed construction methods and materials to be used must be submitted with the grading plan.
- (g) The grading plan must be signed by a California Registered Civil Engineer. An estimate of the cost of accomplishing the work described and delineated on the grading plan and the permit must be submitted in a form which is acceptable to the City Engineer.

[*History:* formerly § 5.711; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.120 Soils and Geological Reconnaissance Report.

- (a) A soils report, prepared by a soils engineer and based upon adequate test borings, shall be required at the discretion of the City Engineer.
- (b) The soils report shall include an adequate description of the geology of the site, and conclusions and recommendations regarding the effect of geologic conditions on the proposed development.
- (c) The soils report shall include data regarding the nature, distribution and strength of existing soils, and conclusions and recommendations for grading procedures and design criteria for retaining wall, foundations and corrective measures when necessary,
- (d) The soils report shall certify that the construction will be stable and will not present a hazard to the adjacent property or to the public in general.
- (e) No land disturbance within one hundred feet of watercourse.
- (f) A geological Engineer shall certify that the grading and drainage design is in accordance with the recommendations stated in the soils report.

[*History:* New, ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.130 Erosion and Sediment Control Plan.

(a) A final erosion and sediment control plan, prepared by a registered civil engineer, shall be submitted unless all of the following conditions are met:

- (1) The site is less than one-quarter of an acre in area and there is less than fifty cubic yards of excavation or fill;
- (2) The provisions for runoff control are in accordance with the provisions of this subchapter and are acceptable to the City Engineer;
- (3) The slope of the site before grading is less than fifteen percent;
- (4) The proposed grading does not pose a threat to adjacent or downstream properties as determined by the director of public services;
- (5) The proposed grading does not obstruct drainage channels;
- (6) The proposed grading is deemed to have no significant environmental impact as determined pursuant to the provisions of the California Environmental Quality Act, as amended, and the regulations promulgated by the California Resources Agency and the Town of Colma City Council to implement said Act.

(b) The final erosion and sediment control plan must effectively minimize soil erosion and sedimentation from the completed project site and must also provide for the control of runoff from the site.

(c) Erosion Control. The faces of excavation and fill slopes shall be prepared and maintained to control against erosion during and after grading. Erosion control may consist of effective planting, berms, silt basins, check dams, terraces, crib walls, and other such measures which have been approved by the City Engineer. Erosion control shall be completed within thirty (30) days of cessation of grading work, or as otherwise specified by the City Engineer.

(d) Planting for erosion control. Wherever ground cover, shrubs, trees or other vegetation have been removed pursuant to lawful grading, the grader shall restore and maintain approved drought-tolerant ground cover or other erosion control measures as required by permit. The City Engineer may require the planting of interim groundcover if necessary to prevent erosion during the period from initial grading to the construction of any buildings and reestablishment of permanent vegetation cover. When slopes too steep to support continuous groundcover are permitted, screening shall be accomplished by placing vines and plantings in niches and ledges set in the slopes. Cuts and fills along public roads, roadside trails or paths may be required to be landscaped to blend into the natural surroundings. All plant materials to be used shall be specified by the permittee and approved by the City Engineer. Topsoil shall be stockpiled during rough grading and returned to graded surfaces. Additional topsoil shall be procured, if needed, so that all graded areas, including cut slopes, will be covered with at least eight (8) inches of topsoil after grading has been completed.

(e) Both final and interim erosion and sediment control plans shall contain the following information:

- (1) A description and delineation of the vegetative measures to be taken to minimize erosion and sedimentation;
- (2) A description and delineation of the temporary and permanent measures to be taken to protect manufactured or disturbed slopes from erosion by mechanical means such as with mulches, diversion dikes, etc.;
- (3) The delineation of the drainage control measures to be taken which shall include surface runoff and sediment yield calculations;
- (4) The extent and manner of the cutting of trees and the clearing of vegetation, the disposal of same, and the measures to be taken for the protection of undisturbed trees and vegetation;
- (5) The methods to be used for the disposal of excess materials;
- (6) The methods to be used for the control of dust;
- (7) A description and delineation of the temporary and permanent measures to be taken to retain sediment on the site;
- (8) A description of the measures to be taken to maintain the devices shown on the plan during grading operations and construction on the site;
- (9) The extent of disturbed ground that will exist, what streets will be paved, and what drainage devices will be installed prior to the start of each rainy season;
- (10) Any other information required by the director of public services;
- (11) Schedule for installation and maintenance of erosion and sediment control measures.

(f) The CRWQCB Field Manual can be used as a guide as to what measures should be taken for any particular set of circumstances in regards to erosion and sediment control features on site.

(g) An interim erosion and sediment control plan is required prior to each rainy season during construction for a project for which a final erosion and sediment control plan is required by this chapter. The city will determine by July 15th if an interim plan will be necessary and on what stage of project completion the plan shall be based. The plan must be submitted in a timely manner thereafter to allow the city to review and approve the plan prior to September 1st. The measures delineated and described in the plan must be operational prior to October 1st.

(h) An estimate of the cost of accomplishing the work described and delineated on the final and interim erosion and sediment control plans and the permit must be submitted in a form which is acceptable to the City Engineer.

(i) Rainy season work may be authorized by the City Engineer if erosion and sediment control measures are installed and functioning.

(j) The Erosion and Sediment Control Plan shall provide that the approved control measures shall be installed no later than October 10 and maintained until the next April 15 or until surfaces are permanently stabilized.

[*History:* New, ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.140 Work Schedule.

The Applicant must submit a master work schedule showing the following information:

- (1) Proposed grading schedule;
- (2) Proposed schedule for installation of all interim erosion and sediment control measures including, but not limited to, the stage of completion of erosion and sediment control devices and vegetative measures;
- (3) Schedule for construction of final improvements, if any;
- (4) Schedule for installation of permanent erosion and sediment control devices where required.

[*History:* formerly § 5.712; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.150 Timeline.

(a) Within 15 calendar days after submission of a Project Application:

- (1) The City Planner shall review the Project Application and notify the applicant if the project requires a CEQA review and, if necessary, shall request additional data, fees and information required to complete the CEQA review; and
- (2) The City Engineer shall review all documents submitted pursuant to this subchapter and, if necessary, request additional data, clarification of submitted data or correction of defective submissions.

(b) The City Engineer shall render a decision on the application for a Grading Permit within 30 calendar days after the last of the following events: completion of a CEQA review, if required; receipt of a complete application and receipt of all required data.

[*History:* formerly § 5.715; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.160 Standards for Issuance of Permits.

(a) The City Engineer may not issue a Grading Permit unless and until all of the following conditions have been satisfied:

- (1) The applicant has paid all fees and posted or deposited the security required by this ordinance; and
- (2) The City Engineer has found, in writing, that:
 - (A) The Site Map and Grading Plan and, when required, the Soil Report and the Erosion Control Plan and Geology Report, meet the standards set forth in this ordinance, the ABAG Manual of Standards, and the CRWQCB Field Manual.
 - (B) The grading will not endanger the stability of the site or adjacent property or pose a significant ground movement hazard to an adjacent property;
 - (C) The grading will not significantly increase erosion or flooding affecting the site or other property and will not cause impacts to riparian habitats, stream channel capacity or water quality that cannot be substantially mitigated;
 - (D) The grading, when completed, will result in a site that is visually compatible with surrounding land and is consistent with existing landforms, topography and natural features on the site;
 - (E) The site, when the grading has been completed, will be consistent with the Town of Colma General Plan;
 - (F) The design of the project preserves existing trees on the site and trees on adjoining property to the extent possible;
 - (G) The grading plan meets the standards set forth in the ABAG Manual of Standards, and
 - (H) The grading plan incorporates best management practices.

(b) If the City Engineer determines that the land area for which grading is proposed is subject to geological or flood hazard to the extent that no reasonable amount of corrective work can eliminate or sufficiently reduce the hazard to persons or property, he must deny the grading permit.

[History: formerly § 5.07.180 and before that § 5.718; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.170 Permit Conditions.

The City Engineer may condition the grant of a Grading Permit on the following conditions:

- (1) A "hold harmless" clause, which states substantially as follows, must be executed by the permittee:

The Permittee, for himself, his or her contractors, and employees, agrees to save, indemnify and hold harmless the Town of Colma and its representatives from all liabilities, claims and judgments for damages by reason of injury or death to any person or persons, or damage to property from any cause whatsoever while in, upon or in any way connected with the work covered by this Grading Permit, and does further agree to defend the City in any claim arising out of or as a result of the work done under this Permit.
- (2) The work must be completed within the time period specified on the permit.
- (3) The work must be in conformance with the approved interim and final erosion and sediment control plan.
- (4) The area in which the work may be done shall be as specified in the approved plans and on the permit.
- (5) The details of the work to be done shall be as delineated on the approved plans and as noted on the permit.
- (6) Work shall be performed only within those hours specified in the Colma Municipal Code, unless other work hours are noted in the permit.
- (7) Haul routes shall be as delineated on the approved plans or as noted on the permit. Any special safety precautions which must be taken to guide pedestrian and vehicular traffic movements in, around, and by the work shall be delineated on the approved plans or as noted on the permit.
- (8) Posting of security must be in conformance with this subchapter.
- (9) A survey by a licensed land surveyor or registered civil engineer qualified to perform surveying work, delineating the boundary lines of the site must be submitted.

- (10) An inspector, if requested by the City Engineer, working under the supervision of a registered civil engineer must be on the site during grading operations.
- (11) The importing of earthen material for the site, is required to state it's origin and if requested by the City Engineer a Certification letter by a approved or certified laboratory stating the soil material is clean of contaminates.
- (12) The disposal site for any material removed from the grading site must be approved by the City Engineer.
- (13) The extent of unprotected slopes allowed at any one time and the time said slopes are allowed to remain unprotected shall be as required by this subchapter unless noted otherwise on the permit;
- (14) The City Engineer may impose any other conditions he or she may deem necessary to carry out the intent of this chapter.

[History: New; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.180 Security.

(a) Prior to the issuance of a grading permit, the City Engineer may require the Applicant, as a condition of approval, to post a Surety Bond, Cash Deposit or Letter of Credit in an amount determined by the City Engineer which will be sufficient to guarantee to the City the faithful performance of all work and all conditions contained or described in the permit. Any such bond shall be approved as to form by the City Attorney. It is the purpose of this requirement to permit the Town to restore the property to a safe and reasonably attractive condition in the event of noncompliance with the conditions of approval.

(b) The City Engineer shall also have the authority to require the posting of a maintenance bond which shall be effective for not more than one year from the approval of the completion of the work as to be determined by the City Engineer. Such maintenance bond shall be in an amount not to exceed twenty-five per cent (25%) of the amount of the faithful performance bond and shall be approved as to form by the City Attorney.

(c) Should the permittee fail to comply with the conditions of approval of the grading permit or fail to repair damage upon request of the City Engineer, the City Engineer shall give written notice to the permittee and Surety Company of the bond. The notice shall state the following:

- (1) The specific work to be completed and/or repair to be made;
- (2) The approximate cost to perform the required work.

(d) Should the required work not be completed within the time specified by the Director, the Director may cause such work to be done and deduct the cost thereof from any cash deposit,

and if a bond has been posted the City shall have a right of action on such bond against the permittee as principal and against the surety.

(e) Sureties or the remaining portion of any cash deposit shall be released only upon satisfactory completion of the work and completion of any required period of maintenance.

(f) Any surety bond required shall provide that if the Town commences legal action to enforce the obligations of the principal and the surety, the Town shall be entitled to recover its reasonable attorneys' fees and other costs.

[*History:* formerly § 5.07.130 and before that § 5.713; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.190 Fees.

The fees to be paid by the Applicant shall be pursuant to a schedule of fees adopted, and amended from time to time by resolution of the City Council upon recommendation by the Director.

[*History:* formerly § 5.07.140 and before that § 5.714; Ord. 275, 8/11/82; Ord. 368, 5/11/88; Ord. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.200 Erosion Control.

(a) The CRWQCB Field Manual shall be used as a guide for the design and suitability of erosion and sediment control measures.

(b) The CRWQCB Guideline for Construction Projects should be used for guidance in designing erosion and sediment control facilities.

(c) The faces of cut and fill slopes must be protected against damage by erosion and the methods utilized for each protection must offer effective erosion control prior to the beginning of, as well as during, the rainy season.

(d) Where graded slopes are steeper than three feet horizontal to one foot vertical or are higher than ten feet, they shall be protected with a temporary soil stabilization measure such as jute matting or equivalent mulch until planting is established.

(e) The surface of all cut slopes higher than five feet and all fill slopes higher than three feet must be permanently protected against damage by erosion by the planting and establishment of protective vegetation.

(f) Slopes higher than fifteen feet shall be planted with shrubs spaced ten feet maximum on centers or trees spaced twenty feet maximum on centers or a combination of shrubs and trees at equivalent spacings in addition to other vegetative cover.

- (g) The planting or seeding of vegetative protection must be effective. If the vegetation does not grow and offer proper protection, it must be replanted or reseeded.
- (h) The maintenance of vegetative protection on graded slopes shall be the responsibility of the permittee and shall be guaranteed until the vegetation is well established as determined by the director of public services or until the maintenance is officially assumed by another party approved by the City Engineer.
- (i) Sediment control facilities must be constructed and in working order prior to the beginning of the rainy season and must prevent sediment from being transported from the site.
- (j) The outlet from any sedimentation basin must be designed to handle 1.5 times the maximum design inflow.
- (k) A standby emergency crew must be provided by the permittee and must be available at all times during the rainy season to repair and maintain the erosion and sediment control devices.
- (l) Adequate Erosion control materials must be stockpiled on the site for emergency repairs during the rainy season.
- (m) Minor protective devices that have been removed during the working day shall be replaced at the end of the working day if the chance of rain is greater than forty percent.
- (n) After each rainfall or if requested by the City Engineer during a rainfall the permittee shall inspect all erosion and sediment control devices and shall clean them and repair any damage.
- (o) Erosion control devices must be installed where drainage facilities discharge into natural channels. The devices may be rip-rap or concrete channel protection, stilling basins, check dams, drop structures or other devices which will effectively minimize erosion in the opinion of the City Engineer.

[History: formerly § 5.720; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05, ORD. 663, 9/12/07; ORD. 664, 10/10/07]

5.07.210 Excavations.

- (a) Cut slopes can be no steeper than necessary, but shall in no case be steeper than two feet horizontal to one foot vertical unless designed and stamped by a Geotechnical Engineer and approved by the City Engineer.
- (b) No cut slope shall be higher than thirty feet unless approved by the City Engineer.
- (c) The top of the excavation slope shall not be closer than three feet to the site boundary.

(d) Slopes less than thirty percent shall require eight (8) inches of topsoil on all nonpaved areas.

[History: formerly § 5.721; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05; ORD. 663, 9/12/07; ORD. 664, 10/10/07]

5.07.220 Fills.

(a) The area on which fill is to be placed shall be cleared of all vegetation, such as trees, logs, stumps, and roots of trees, brush, heavy growth of grass and weeds, and any other objectionable material, such as debris, concrete foundations, metal, or nonearthen materials which cannot be properly consolidated or will not support the load of the embankment or structures. The cleared area shall extend to a width of two feet outside the area to be filled. All trees, existing stumps and large roots shall be removed, except that within the area where fills will be three feet or more in height, trees may be cut flush with the existing ground and grubbing of the remaining stumps will not be required except at locations where sub-drainage, trenches, drain pipes, foundations or other structures are to be constructed or where unsuitable material is to be removed before construction of the embankment.

(b) The existing ground shall be prepared to receive fill construction by:

- (1) The installation of sub-drains to intercept and dispose of waters from springs, aquifers, or other underground sources of water; and storm drains to intercept and dispose of surface waters where required on approved plans.
- (2) Compacting the ground area upon which any embankment is to be constructed to a minimum relative compaction of ninety percent throughout the top six inches or as recommended by the soils report.

(c) Embankment fills shall not be constructed upon natural ground slopes which are steeper than five horizontal to one vertical unless such embankments are keyed into the natural ground; and the native material together with the fill material shall be re-compacted to a relative compaction of ninety percent or as recommended by the soils report. The width of the steps for keying new embankments to existing slopes shall be the width of the compaction equipment plus five feet but not less than ten feet. The construction operation shall be such that a slip plane is not created between the original material and the newly compacted material.

(d) Fill slopes shall be no steeper than necessary, but shall in no case be steeper than two feet horizontal to one foot vertical unless designed and stamped by a Geotechnical Engineer and approved by the City Engineer.

(e) No fill slope shall be higher than thirty feet unless approved by the City Engineer

(f) Except as noted below for rock fill, material for embankments and backfill for excavations, slides, walls and other structures shall be spread in layers not exceeding eight

inches in loose thickness before compaction, and each layer shall not be compacted to a relative compaction of not less than ninety percent.

(g) The side slopes of all embankments shall be compacted by means of tampers or rollers to a minimum of eighty-five percent relative compaction.

(h) When fill material includes rock, individual placed rocks shall not be greater than six (6) inches in it's greatest dimension. No large rocks will be permitted to nest, and all voids shall be filled with earth or other fine material and properly compacted.

(i) At the time of compaction, the moisture content of the embankment material shall be such that the relative compaction specified may be obtained with the compacting equipment being used. Water shall be added in the required amount to obtain the optimum moisture content for achieving maximum density. Compaction of embankment material which contains excessive moisture shall be delayed until material has been allowed to dry to such an extent that the relative compaction specified may be produced with the compacting equipment being used.

(j) Sufficient field tests to determine the relative compaction of the ground and embankment material shall be taken and shall be reported to the Town.

(k) The top and bottom of fill slopes shall not be closer than three feet to the site boundary.

(l) Slopes less than thirty percent shall require eight (8) inches of topsoil on all unpaved areas.

[*History:* formerly § 5.721; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05; ORD. 663, 9/12/07; ORD. 664, 10/10/07]

5.07.230 Drainage.

(a) Benches at least six feet wide shall be installed on all cut and fill slopes at not more than twenty-foot vertical intervals.

(b) All benches shall have city standard concrete V-ditches for drainage. The ditches shall have a minimum gradient of five percent and a maximum gradient of forty percent.

(c) All natural embankments adjacent to or within residential lots twenty feet or more in height shall have benches and V-ditches near the bottom of the slope to prevent runoff from the embankment from flowing onto the residential lot.

(d) Runoff shall not be allowed to flow over the top of a slope onto the slope face.

(e) Drainage facilities must discharge into existing manmade drainage facilities or into natural channels subject to the approval of the director of public services.

(f) Drainage facilities must be designed to handle as a minimum the runoff computed in accordance with the requirements and standards of this subchapter as specified for runoff calculations which must accompany the grading plan.

(g) Building pads must slope a minimum of two percent toward drainage facilities.

All drainage devices not accepted for maintenance by the city must be maintained by the property owner.

[History: formerly § 5.723; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05; ORD. 663, 9/12/07; ORD. 664, 10/10/07]

5.07.240 Substitutions.

Any method or material may be used to accomplish the results specified in this chapter, subject to the approval of the City Engineer.

[History: New. Ord. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.250 Inspection.

(a) No grading work shall be done before a permit is issued therefor.

(b) The permittee shall notify the Town, forty-eight hours prior to starting work at the beginning of the project and on each occasion where work has stopped for more than three consecutive working days.

(c) The Town shall have the right to inspect the work regularly for compliance with the requirements of this subchapter and the conditions of the permit.

(d) The Town shall place special emphasis on inspection at critical times in the sequence of construction, such as the "Wet Season" defined as October 15th through April 15th, immediately after the first significant rainfall of the season, and after every heavy storm.

(e) The Civil Engineer who prepared the grading plans, at the request of the City Engineer, shall submit a progress report at the end of every month during which work was done.

(f) The permittee must call for inspection for any drainage device and the Town must make its inspection before the device is covered.

[History: New. ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.260 Modification of Permit.

The terms and conditions of the permit may be modified or amended by the City Engineer upon request of the permittee and a showing that such terms or conditions were based on an excusable error or an unforeseen change of circumstances.

[History: formerly § 5.07.200 and before that § 5.720; Ord. 275, 8/11/82; Ord. 368, 5/11/88; Ord. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.270 Duration of Permit.

Permits issued under this subchapter shall be valid for the period during which the proposed land disturbing or filling activities and soil storage takes place or is scheduled to take place, whichever is shorter.

[History: formerly § 5.07.160 and before that 5.716; Ord. 275, 8/11/82; Ord. 368, 5/11/88; Ord. 638, 12/14/05; Ord. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.280 Suspension or Revocation of Permit.

(a) The City Engineer shall suspend the Permit and issue a stop work order, and the permittee, on notice, shall cease all work on the work site except for work necessary to remedy the cause of the suspension, when:

(1) The City Engineer determines that the permit was issued in error or on the basis of incorrect information supplied or in violation of any ordinance or regulation of the Town;

(2) The City Engineer determines that the work is not being conducted in accordance with the terms and conditions of the permit;

(3) Conditions at the site vary appreciably from those shown on the approved plans;

(4) The site is left in a condition hazardous to the public or to adjacent properties, and the permittee does not comply with reasonable requirements to correct said conditions;

(5) The permittee, in connection with the operations for which the permit was issued, fails to operate his or her equipment properly on public roads; or allows material to encroach, obstruct, or be deposited within a public right-of-way or within a drainage channel in a manner not authorized by said permit; or causes unauthorized obstruction or diversion of drainage channels or overland flows.

(6) The permittee fails to have a qualified inspector, working under the supervision of a registered civil engineer, on the site during operations when so required by the permit; or fails to have the work under proper supervision at all times; or

(7) Emergency conditions exist on the site which constitutes a threat to health, safety, or public welfare.

(b) Upon notification from the City Engineer of the suspension of the permit, the permittee shall cease all work in connection with the permit with the exception of the work necessary to correct the objectionable or emergency conditions which caused the suspension of the permit. The permittee shall then proceed at once to correct said objectionable or emergency conditions.

(c) If the permittee fails to correct said objectionable or emergency conditions, the Town may cause the work necessary to correct said conditions to be done, and the city may take action against the permittee's security to cover the cost of performing the work.

(d) Any permit which has been suspended may be either reinstated or revoked by the City Engineer.

(e) Whenever a permit has been revoked, work shall not commence until a new application has been filed and approved incorporating the necessary revisions required to fulfill the intent of this chapter, and a new permit has been issued.

[History: formerly § 5.07.210 and before that 5.721; ORD. 275, 8/11/82; ORD. 368, 5/11/88; ORD. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.290 Completion of Work.

(a) Upon notification of permittee, Town shall make a final inspection to determine if all work has been completed satisfactorily in accordance with the permit and the approved plans.

(b) The soils engineer, who prepared the soils and geological reconnaissance report, if required by the City Engineer, shall certify that all work has been done in accordance with this chapter, the approved plans and specifications, and the grading permit and conditions thereof.

(c) A reproducible copy of the grading plan reflecting any changes made and showing all improvements as finally constructed must be submitted and stamped "AS_BUILT" by the Civil Engineer of record .

(d) A reproducible copy of the erosion and sediment control plan reflecting any changes made and showing all improvements as finally constructed must be submitted and stamped "AS_BUILT" by the Civil Engineer of record.

(e) When all work has been completed satisfactorily in accordance with the permit and the approved plans, and when the City Engineer has received the required certification and "as built" copies of the plans, the City Engineer shall issue a completion to the permittee.

[History: New. ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.300 Appeal.

A decision of the City Engineer with respect to the Colma Grading and Erosion and Sediment Control Ordinance may be appealed by any interested party to the city council in accordance with the procedures set forth in section 1.02.140 of the Colma Municipal Code.

[History: formerly § 5.07.170 and before that § 5.717; ORD. 521, 12/10/97; ORD. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]

5.07.310 Violations.

- (a) Any person violating any of the provisions of this subchapter shall be guilty of a misdemeanor, which shall be punishable as set forth in section 1.05.010 *et seq.* of the Colma Municipal Code.
- (b) The grading, filling, excavating, storing or disposing of soil and earth materials in violation of this ordinance is declared to be a public nuisance, which may be abated pursuant to the procedures set forth in the Property Maintenance and Nuisance Abatement Ordinance of the Town of Colma (Colma Municipal Code, subchapter 2.01).
- (c) The remedies for enforcement of a permit set forth in this ordinance are cumulative and in addition to all other remedies provided by law.

[*History:* formerly § 5.07.220 and 5.07.230 and before that § 5.722 and 5.723; ORD. 521, 12/10/97; ORD. 638, 12/14/05; ORD. 663; 9/12/07; ORD. 664, 10/10/07]